



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/811,591

03/29/2004

Donghul Lu

42P19023

2696

45209

7590

09/23/2009

INTEL/BSTZ

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

1279 OAKMEAD PARKWAY

SUNNYVALE, CA 94085-4040

EXAMINER

GAMBETTA, KELLY M

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

09/23/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## **DETAILED ACTION**

The amendment will not be entered after final because it does not simplify the issues for appeal. These issues are discussed below.

### ***Response to Arguments***

Applicant's arguments filed 11 September 2009 have been fully considered but they are not persuasive. The applicant argues that the prior art does not teach plasma timing. Though this amendment is not entered after final, the argument pertains to claim 2 of the 18 May 2009 claims. Maes teaches applying plasma power, flowing a deposition gas, starting nitride deposition to form a layer after reapplying the power, and then turning off the power as discussed in the previous office action. Nguyen et al. teaches depositing a first portion of a layer, and repeating it to deposit a second layer. The motivation appears in Nguyen et al. where depositing the second layer (especially in a pulsed plasma process, which the claims include as broadly written) which includes lower temperature reaction (paragraph 0004), high coverage (paragraph 0010) and minimizing process time and enhancing quality (paragraph 0049). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Maes to include the nitride layer as part of a first portion of a layer then repeating this process to form a second layer as taught by Nguyen et al. in order to take advantage of these benefits. The motivation present in the prior art to combine the references need not be the same motivation that the applicant uses in the instant application. The fact that

Art Unit: 1792

applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Ohmi, as discussed in the previous office action, provides motivation for chamber generated plasma as an alternative to remotely generated plasma as required by claim 1. Again, the motivation need not be the same as the applicants' advantage for using such a process. Further, these advantages are not in the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore, for at least these reasons, the rejections of the previous office action are maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KELLY GAMBETTA whose telephone number is (571)272-2668. The examiner can normally be reached on Monday - Thursday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1792

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kelly M Gambetta  
Examiner  
Art Unit 1792

kmg

/Timothy H Meeks/  
Supervisory Patent Examiner, Art Unit 1792